

IN THE CLAIMS:

The following is a complete listing of claims in this application.

1. (currently amended) A method of detecting a deposit (D) that might form inside a fluid transport pipe (2) which comprises an outside surface, the method comprising:

- applying a thermal gradient (G) to at least one "active" active zone (Za) of the outside surface of the pipe;
- measuring the heat flux (F) in at least one zone (Zm) of the outside surface of the pipe that is situated at a given distance from the active zone in consideration of along the length of the pipe; and
- detecting when the heat flux corresponding at least in part to the applied thermal gradient and transmitted by the pipe exceeds a determined threshold indicative of the presence of a deposit inside the pipe.

2. (currently amended) A method according to claim 1, characterized in that it consists in comprising applying a thermal gradient (G) in a determined cycle.

3. (previously presented) A method according to claim 1 comprising applying a thermal gradient (G) in an active zone (Za) constituting a circumference of the pipe.

4. (previously presented) A method according to claim 1, comprising applying a thermal gradient (G) via a heat production source (3) fitted to or integrated in the pipe.

5. (currently amended) A method according to claim 1, characterized in that it consists in comprising measuring the heat flux (F) at one or more sectors of a circumference of the pipe.

*BY*

6. (previously presented) A method according to claim 1 comprising measuring the heat flux (F) by means of a heat flux sensor (7) fitted to or integrated in the pipe.

7. (currently amended) A method according to claim 1, ~~characterized in that it consists in comprising~~ determining the thickness of the deposit (D) by comparing the measured heat flux with the heat flux measured during a calibration stage.

8. (currently amended) An installation for ~~implementing a method according to claim 1, in order to detect detecting~~ a deposit (D) that might form inside a fluid transport pipe (2) which comprises an outside surface, the installation being characterized in that it ~~comprises comprising~~:

- at least one production source (3) for producing a thermal gradient (G), the source being constructed and arranged for mounting on an "active" active zone (Za) of the outside surface of the pipe;

- at least one measurement sensor (7) for measuring heat flux (F), the sensor being constructed and arranged for mounting on a zone (Zm) of the outside surface of the pipe situated at a given longitudinal distance from ~~relative to~~ the active zone at a given distance in consideration of the length of the pipe; and

- control and monitoring means (5) connected to the production source (3) and to the measurement sensor (7), and adapted to detect when the heat flux corresponding at least in part to the applied thermal gradient and transmitted by the pipe exceeds a determined threshold indicative of the presence of a deposit inside the pipe.

*By*

9. (currently amended) An installation according to claim 8, ~~characterized in that wherein~~ the monitoring means (5) ~~comprise comprises~~ means for determining the thickness of the deposit by comparing the measured heat flux and the heat flux measured during a calibration stage.

10. (currently amended) An installation according to claim 8, ~~characterized in that wherein~~ the control and monitoring means (5) comprise means for detecting the peak values of the a measured heat flux signal so that the peak-to-peak value of the signal can be compared with the threshold value indicating the presence of a deposit inside the pipe.

11. (currently amended) An installation according to claim 8, ~~characterized in that wherein~~ the production source (3) for producing a heat gradient is constituted in the form of a flexible band fitted to or integrated in the pipe.

12. (currently amended) An installation according to claim 8, ~~characterized in that wherein~~ the measurement sensor for measuring heat flux (7) is formed by a flexible band equipped with one or more flux meters and fitted to or integrated in the pipe.